UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

TQ DELTA, LLC,

Plaintiff,

Civil Action No.: 2:21-cv-310

v.

COMMSCOPE HOLDING COMPANY, INC., COMMSCOPE, INC., ARRIS US HOLDINGS, INC., ARRIS SOLUTIONS, INC., ARRIS TECHNOLOGY, INC., and ARRIS ENTERPRISES, LLC,

Defendants.

COMMSCOPE'S RESPONSE TO TQ DELTA'S MOTIONS FOR JUDGMENT AS A MATTER OF LAW AND MOTIONS FOR A NEW TRIAL FOR U.S. PATENT NOS. 7,570,686 AND 8,462,835 (DKT. NO. 537)

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Exhibit No.	Description
A	Dr. Leonard J. Cimini, Jr. Demonstratives (DDX-001)
В	Juror Notebook

I. INTRODUCTION

TQ Delta's Motion asks the Court to focus on cherry-picked expert testimony and to ignore significant additional evidence that supports the jury's verdict of invalidity. Specifically, in making its arguments about the 686 patent, TQ Delta ignores the contents of the prior art references, the disclosures within the specification of the 686 patent, and the corroborating expert and inventor testimony. TQ Delta also focuses on the claim term "transceiver" and asserts that CommScope's experts failed to apply the Court's construction. TQ Delta is wrong. A review of the full record and all the evidence demonstrates that CommScope's experts applied the Court's construction, and did so without any cross-examination by TQ Delta on the issue. Accordingly, there is substantial evidence supporting the jury's verdict that the asserted claims of the 686 and 835 patents are invalid. TQ Delta's Motion should be denied.

II. LEGAL STANDARD

"Judgment as a matter of law is proper when 'a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue." *Abraham v. Alpha Chi Omega*, 708 F.3d 614, 620 (5th Cir. 2013) (quoting Fed. R. Civ. P. 50(a)). "Upon a party's renewed motion for judgment as a matter of law following a jury verdict, the Court asks whether 'the state of proof is such that reasonable and impartial minds could reach the conclusion the jury expressed in its verdict." *Cassidian Communs., Inc. v. Microdata GIS, Inc.*, Civil Action No. 2:12-cv-00162-JRG, 2014 U.S. Dist. LEXIS 110133, at *6 (E.D. Tex. Aug. 8, 2014); *see also Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, No. 2:14-cv-911-JRG, 2016 U.S. Dist. LEXIS 112425, at *6 (E.D. Tex. Aug. 23, 2016).

III. ARGUMENT

A. The Jury Properly Found That Claim 36 of the 686 Patent Is Invalid

With respect to the 686 patent, TQ Delta argues that CommScope failed to present evidence (1) of a motivation to combine the AT&T Contribution and ADSL, (2) that the prior art discloses Element 36[b], and (3) that the prior art discloses a "transceiver" as construed by the Court. TQ Delta's statements are inaccurate and do not reflect the clear and convincing evidence presented to the jury.

1. Motivation to Combine

First, TQ Delta argues that "missing entirely from CommScope's presentation via its expert witness, Dr. Leonard Cimini, was any evidence or articulation of a motivation at the time of the invention to combine the references in a way that would arrive at the claimed invention." Br. at 2. TQ Delta is incorrect. In introducing the FI-071 (the "AT&T Contribution") (Tr. Ex. 47) and ADSL (Tr. Ex. 48) reference combination, Dr. Cimini testified that the AT&T Contribution, itself, indicates that it should be combined with ADSL. Dr. Cimini's testimony included the following:

- **Q.** So if we look at slide 12, which shows us the abstract from Exhibit 47, the AT&T contribution, what is this contribution telling us?
- **A.** So we can see in the abstract right at the top that the paper that the contribution wants to propose adding diagnostic information to G.992.1, which is ADSL, and in particular it wants to add quiet line power spectral density measurement, which is PSD, and a line balance measurement.
- **Q.** And so when we see the references here to G.992, is that a reference to the same ADSL standard that we just reviewed a moment ago?
- A. Yes.
- **Q.** So do these two documents tie themselves together?
- **A.** Yes. This is just an improvement, a suggested improvement to the existing standard.

Dkt. 532 (Trial. Tr. Vol. 4) at 160:9-23. Slide 12, which Dr. Cimini was referencing, is reproduced below:

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	Quadratil
	ABSTRACT
	ABSTRACT onal diagnostic information be specified in G.992.1bis and G.992.2bis including a quie the balance measurement
	onal diagnostic information be specified in G.992.1bis and G.992.2bis including a quie ne balance measurement.
This paper proposes addi PSD measurement and a	onal diagnostic information be specified in G.992.1bis and G.992.2bis including a quie ne balance measurement.
	onal diagnostic information be specified in G.992.1bis and G.992.2bis including a quiet ne balance measurement. Compared to the compared to
	onal diagnostic information be specified in G.992.1bis and G.992.2bis including a quie ne balance measurement. - Not least and the second of

Ex. A at 12 (DDX-001.12). As Dr. Cimini explained, the AT&T contribution specifically states "[t]his paper proposes additional diagnostic information be specified in G.992.1bis and G.992.2bis [ADSL] including a quiet line PSD measurement and a line balance measurement."

This evidence is more than sufficient. As the Federal Circuit has explained, "[w]here, as here, all claim limitations are found in a number of prior art references, the factfinder must determine '[w]hat the prior art teaches, whether it teaches away from the claimed invention, and whether it motivates a combination of teachings from different references." *Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1360 (Fed. Cir. 2006) (citing *In re Fulton*, 391 F.3d 1195, 1199-1200 (Fed. Cir. 2004)). As Dr. Cimini testified and explained, the reference itself expresses that it should be combined with ADSL. This evidence shows that a POSITA would have been motivated to combine the references with a reasonable expectation of success. 35 U.S.C. § 103(a); *see InTouch Techs., Inc. v. VGO Commc'ns, Inc.*, 751 F.3d 1327, 1347 (Fed. Cir. 2014).

Notably, TQ Delta did not even cross-examine Dr. Cimini on this opinion or present any affirmative evidence to attempt to demonstrate that there is not a motivation to combine the AT&T contribution with ADSL with a reasonable expectation of success. *See Cardsoft, Inc. v. Verifone Holdings, Inc.*, No. 2:08-cv-98-RSP, 2013 U.S. Dist. LEXIS 140322 at *17-18 (E.D. Tex. Sept. 30, 2013) ("[Defendant] did not cross-examine him on the basis for his opinion, and therefore the jury was free to accept or reject this opinion evidence.") (citing *Symbol Techs., Inc. v. Opticon, Inc.*, 935 F.2d 1569, 1576 (Fed. Cir. 1991) (concluding that a party who chooses not to cross-examine a witness on an issue cannot later "recoup for its failed litigation strategy")). Accordingly, the jury had more than sufficient evidence to conclude there was a motivation to combine the references with a reasonable expectation of success.

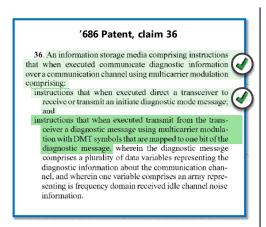
2. The Prior Art Discloses Element 36[b] of Claim 36 of the 686 Patent

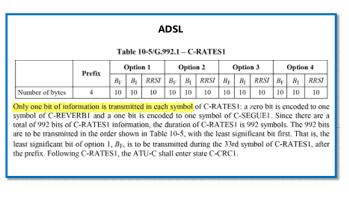
Second, TQ Delta asserts that CommScope failed to present evidence that Element 36[b] was known in the prior art. TQ Delta argues that "Dr. Cimini's affirmative testimony regarding claim element 36[b] is approximately one-page long" and that "Dr. Cimini[] sole[ly] reli[ed] on the C-RATES messaging scheme for G.992.1." *See* Br. at 7. As an initial matter, TQ Delta's complaint that Dr. Cimini's testimony was not long enough is an explicit acknowledgment that Dr. Cimini did, in fact, present "affirmative testimony" on this subject. Regardless, TQ Delta's argument ignores substantial additional evidence presented to the jury, including:

- the multiple other instances in which Dr. Cimini testified about Element 36[b],
- the express disclosure of ADSL,
- the express disclosure of the 686 patent itself, and
- testimony from the named inventor on the 686 patent.

Dr. Cimini testified that the subject matter of Element 36[b] was in the prior art at least three separate times. First, Dr. Cimini testified that "a message with one bit per symbol" was already known in ADSL and the 686 patent, as summarized in DDX-001.26 (reproduced below). See Dkt. 532 (Trial Tr. Vol. 4) at 158:15-159:15. Second, Dr. Cimini mapped the disclosure of the ADSL reference to the express language of Element 36[b]. *Id.* at 166:15-167:19. Finally, Dr. Cimini reiterated his point during re-direct examination and testified that "Mr. Pizzano, the inventor, when asked that question, said that he -- about the 686 patent, he said that that one-bit per symbol messaging was basically just reusing existing standardized symbols." *Id.* at 204:5-20. Each time, Dr. Cimini pointed to ADSL's disclosure of the C-RATES1 message in which "only one bit of information is transmitted in each symbol." This disclosure of ADSL (Tr. Ex. 48) was summarized in a demonstrative that was also presented to the jury:

"instructions that when executed transmit from the transceiver a diagnostic message using multicarrier modulation with DMT symbols that are mapped to one bit of the diagnostic message"





COMMSCISPE | Exhibit 48 DDX-001.26

Ex. A at 26 (DDX-001.26).

TQ Delta argues that because the "C-RATES information is not diagnostic information," a person of ordinary skill in the art would not have been "motivated to modify G.992.1 to use the C-

RATES messaging scheme to instead transmit a diagnostic message." Br. at 7-8. As already described, however, the AT&T contribution itself encouraged a POSITA to combine its teachings with those of ADSL. In addition, the disclosure in the 686 patent itself told a POSITA to use the C-RATES messaging scheme in conveying a diagnostic message:

In the diagnostic link mode, the RT modem sends diagnostic and test information in the form of a collection of information bits to the CO modem that are, for example, modulated by using one bit per DTM symbol modulation, as is used in the C-Rates1 message in the ITU and ANSI ADSL standards, where the symbol may or may not include a cyclic prefix. Other exemplary modulation techniques include Dif-

Tr. Ex. 2 (686 patent) at 3:44-50 (highlighting added).

Finally, Robert Pizzano, a named inventor on the 686 patent, testified to the jury that the inventors intended for the C-RATES message scheme, as described in ADSL (G.992.1) and the 686 patent, to be used to send the diagnostic message described in the 686 patent:

- **Q.** Right under where it says G.992.1, what is the date on this document?
- A. Reading the document, it's 06/99.

. . .

- \mathbf{Q} [I]t says C-rates 1. Do you see that?
- A. Yes, I do.
- **Q.** And is that the same C-rates that is described within the specification of the '686 patent?
- **A.** I have no reason to think it's not. So it wasn't we used the ANSI standards. So this is the ANSI document or the ITU document.

. . .

- **Q.** Okay. My question is, what method of modulation are you using for the diagnostic mode in your patent, in the '686 patent?
- A... The diagnostic link in the in the development work I did, in order to be able to push that data through under the worst condition, we used the the the one-bit per symbol messaging

scheme. I don't recall exactly what ITU feature it was, but it was – yeah, it was – it – the diagnostic link that – that I wrote for the work had – hard the one-bit signal.

Q. Okay. That you pulled from the ITU standard.

A. We reused existing standardized symbols, correct.

Dkt. 532 (Trial Tr. Vol. 4) at 214:4-5, 214:18-25, 215:6-8, 215:12-20.

Accordingly, in addition to Dr. Cimini's testimony, the jury was in possession of the references themselves along with evidence of the 686 patent specification and inventor testimony. Each piece of evidence demonstrates that the concepts described in Element 36[b] were well known in the art. Accordingly, it was reasonable for the jury to find that this element was known in the prior art and that claim 36 of the 686 patent is invalid.

3. Dr. Cimini Applied the Court's Claim Construction and Showed That the Prior Art Includes a "Transceiver"

TQ Delta asserts that CommScope did not demonstrate that the prior art discloses a "transceiver" under the Court's claim construction. As an initial matter, and as TQ Delta acknowledges, Dr. Cimini explicitly confirmed that he "review[ed] the claim constructions that the Judge [] provided and [] appl[ied] this in [his] analysis." Br. at 9; Dkt. 532 (Trial Tr. Vol. 4) at 153:20-23; see, e.g., Genband U.S. LLC v. Metaswitch Networks Ltd., No. 2:14-cv-33-JRG, 2016 U.S. Dist. LEXIS 134652, at *37 (E.D. Tex. Sept. 29, 2016) (denying motion for judgment as a matter of law where defendant argued that plaintiff's expert failed to present evidence that the accused products met the court's construction of a particular limitation).¹

Dr. Cimini testified that the AT&T contribution discloses "diagnostic information at both ends of the line, and it's communicated over the loop." Dkt. 532 (Trial Tr. Vol. 4) at 161:3-5. This

¹ Indeed, the Court's claim constructions were available to the jury in the juror notebooks for reference throughout the trial. Ex. B at 2.

testimony is supported by the language of the AT&T contribution, which was also presented to the jury:

1. Availability of diagnostic information at both ends of the line

There are occasions where diagnostic tests are performed from either end of the subscriber line. Tests invoked from a central network operations center are performed from the network end of the line. On other occasions a network technician may perform installation/trouble testing from the customer premises or a cross-box in the loop plant using portable test equipment. Also, the customer, aided by diagnostic software in their PC could help diagnose some troubles. All of these diagnostic efforts are assisted by conveying all parameters observed at the far end of the loop to the other end of the loop via standardized messages.

It is proposed that the following information, observed by the ATU-C receiver, be conveyed to the ATU-R at an interval no less than once every 30 seconds:

- -Upstream SNR margin
- -Upstream Attenuation
- -Downstream power control of ATU-C transmitter

Tr. Ex. 47 at COMMSCOPE000402 (highlighting added); *see also* Ex. A at 19, 30 (DDX-001.19, DDX-001.30). Such disclosure makes it clear that the transceiver shares at least some common circuitry to convey information from one end of the line ("ATU-C receiver") to the other ("ATU-R").

Further, the ADSL standard, Trial Exhibit 48, includes extensive disclosure of a transceiver with common circuitry:

ASYMMETRIC DIGITAL SUBSCRIBER LINE (ADSL) TRANSCEIVERS

Summary

This Recommendation describes Asymmetric Digital Subscriber Line (ADSL) Transcrivers on a metallic twisted pair that allows high-speed data transmission between the network operator end (ATU-C) and the customer end (ATU-R). This Recommendation provides a variety of bearer

Tr. Ex. 48 at COMMSCOPE001024 (highlighting added). Specifically, ADSL describes a "transceiver[] on a metallic twisted pair that allows high-speed data transmission between the network operator end (ATU-C) and the customer end (ATU-R)," demonstrating that the two ends are connected by common circuitry. *Id*.

Finally, TQ Delta never contested that the AT&T Contribution and ADSL disclosed a transceiver with common circuitry. TQ Delta never cross-examined Dr. Cimini on this point, and TQ Delta did not present a witness of its own to testify to the contrary.

In sum, a reasonable jury had a legally sufficient evidentiary basis to find that claim 36 of the 686 patent is invalid. TQ Delta's motion for judgment as a matter of law should be denied.

B. The Jury Properly Found That the 835 Patent Is Invalid

TQ Delta's only argument regarding the 835 patent is that "CommScope . . . failed to present any evidence at trial that either of the prior art references it relied on for claim 10 of the 835 patent include a 'transceiver,' as the Court construed that term." Br. at 9. However, as with claim 36 of the 686 patent, TQ Delta is simply wrong. Mr. McNair explicitly confirmed that he "had the opportunity to read and review the Judge's claim constructions that pertain to the '835 Patent," and he testified that he "appl[ied] those constructions in forming [his] opinions." Br. at 11; Dkt. 532 (Trial Tr. Vol. 4) at 294:14-19; see, e.g., Genband, 2016 U.S. Dist. LEXIS 134652, at *37. As noted earlier, the jury had the Court's constructions in their juror notebooks.

Mr. McNair also testified that the prior art itself, in particular the ADSL standard document, includes ATUs, which are "ADSL transceiver units," and he agreed that there is "[n]o question that ADSL talks about transceivers that have processors." Dkt. 532 (Trial Tr. Vol. 4) at 308:7-18; see also id. at 298:18-21 (Mr. McNair testifying that the ADSL standard "ha[s] every single element that's required by claim 10 of the '835 Patent"); id. at 304:7-10 (Mr. McNair testifying that the Texas Instruments contribution "describe[s] use of flag signals in the context of switching settings for the transceivers"). This testimony is supported by the language of the ADSL contribution, which, as discussed above with respect to the 686 patent, was presented to the jury and includes extensive disclosure of a transceiver with common circuitry. Tr. Ex. 48 at

COMMSCOPE001024; see supra Section III.A.3. Such disclosure makes it clear that within the transceiver, the transmitter portion and receiver portion share at least some common circuitry.

Finally, TO Delta never contested that ADSL disclosed a transceiver with common circuitry. TQ Delta never cross-examined Mr. McNair on this point, and TQ Delta's witness on the alleged validity of claim 10 of the 835 patent, Dr. Madisetti, did not testify to the contrary.

In sum, a reasonable jury had a legally sufficient evidentiary basis to find that claim 10 of the 835 patent is invalid. TQ Delta's motion for judgment as a matter of law should be denied.

IV. **CONCLUSION**

For the reasons described above, the jury had a sufficient evidentiary basis to find claim 36 of the 686 patent and claim 10 of the 835 patent invalid, and CommScope therefore respectfully requests that the Court deny TQ Delta's motion for judgment as a matter of law under Rule 50(b) of no invalidity. Because TQ Delta's motion should be denied, CommScope further respectfully requests that the Court deny TQ Delta's contingent motion for a new trial on damages as to the 686 patent and the 835 patent.

Dated this 14th day of June, 2023

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing document was filed electronically in compliance with Local Rule CV-5(a). Therefore, this document was served on all counsel on June 14, 2023.

/s/ Ross R. Barton Ross R. Barton